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INFORMATION ON THE AEGEAN ISLANDS

This report consists of questions and answers regarding the Aegean Islands.

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INFORMATION ON THE AEGEAN ISLANDS

I. Are materials for the construction of wooden ships supplied locally or imported to the Aegean and Dodecanese Islands? What kind of timber is used in such construction?

Many small wooden boats are used in the commerce, fishing, and sponge fishing of the Aegean area. They are built in small yards on the islands of Crete, Mytilene, Patmos, Samos, Kos, Symi, Leros, and Rhodes. Perhaps the most important centers of the boatbuilding industry are the ports of Rodi (Rhodes) on the island of that name, Potamos in Mytilene, Tigani in Samos, and Mandraki in Kos. Boats of 40 tons are built in the yards of Mandraki.

The Aegean islands used to have fine forests of oak, pine, plane, myrtle, and cypress. Many of the islands have been almost completely denuded of their forests, but Crete, Rhodes, Karpathos, Samos, Khios, Imbros, and Mytilene still have some forest patches, located in most cases on mountain slopes difficult of access. The island of Thasos is heavily forested, and is able to export some fir.

Almost all of the lumber which is used for boat-building and construction purposes in the islands has to be imported. Oak, pine, juniper, and fir are imported from the Anatolian mainland, from Macedonia, and from

Yugoslavia. The Turkish port of Bodrum near the island of Kos is the chief shipping center for Anatolian lumber used in the Dodecanese Islands. Kos, Patmos, and Symi have to depend almost entirely upon imported lumber in order to continue their shipbuilding activities. Even Rhodes and Crete import lumber and their timber shortage has probably grown more acute than ever because of the destructive exploitation of more accessible remaining timber by large Axis garrisons.

II. What are the supply routes for the transport of Roumanian oil into the Aegean area?

There are three routes for the transport of Roumanian oil to the Aegean Area: (1) By railroad and pipeline to Constanta, thence by tank steamer through the Bosporus to Piaeus and the Aegean Islands; (2) By rail or pipeline from Ploesti to Giurgiu, across the Danube by train ferry to Ruse, and via the Bulgarian railroad to Edirne on the main Greek railway line leading from Edirne via Dedeagach and Xanthe to Salonika, and from there by tanker to the Aegean Islands; (3) By rail and pipeline from Ploesti to Giurgiu and across the Danube by train ferry to Ruse and from Ruse over the secondary line to Sofia; thence to Nis, Yugoslavia and via the main

railway line leading southward through Greece to Salonika or Piaeus, and from there to the Aegean Islands.

Though Route 1 is the most efficient and avoids traffic over the obsolete Bulgarian and Greek railways, observations of tanker passages at Istanbul indicate that it is not being used to any appreciable extent. There are reportedly only two small tankers used in this trade. Most of the shipments to the Aegean move over the rail routes indicated under 2 and 3. Route 3 is probably the more important of the two lines.

III. Are cargo planes used by the Germans to bring supplies into the Aegean area?

Since the German occupation of Crete, Rhodes, and other Aegean Islands cargo has regularly been transported to, from, and among these islands by land and sea aircraft. The following recent reports, believed to be reliable, indicate that the practice continues and may even have been expanded to substitute in some degree for convoys.

1. 20 October 1943: "It is reported that Germans are fitting many of their Junkers Ju 52s* with floats. Great activity is also observed with another type of

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* The Ju 52 is the standard German transport plane.

seaplane coming from a northeast direction towards Crete, probably acting as a communication aircraft between islands without airdromes."

2. 28 October 1943: A report mentioned the removal by air of foodstuffs from Rhodes by the Germans.

3. 15 November 1943: "On 30 September and 1 October there was considerable activity of transport aircraft with loads of gasolene from Athens Airdromesto Crete."

4. November 1943: "On the nights of 20-21-22 October there was fair activity of transport planes from Tatoi southwards."

IV. Is there coal on Leros? If imported, what is the estimated stock on hand and quantity imported monthly?

There is no evidence as to the existence of natural coal deposits on the island of Leros, and recent reports on coal stocks are lacking. There are older reports as to stocks of imported coal prior to the recent occupation of the island by the British and its reoccupation by the Germans. In 1942 it was reported that coal was stored at Koulouki, Gonia, Mericcia, and Malissa Point. The coal at Gonia was reported to be near the naval base (Naval Headquarters?); that at Mericcia, between Mericcia Pier

and Mericcia; supplies for ships being taken from the latter dump. The coal at Malissa Point was said to be in a dump to the southwest, in a triangular clearing cut out of the hillside at the eastern end of San Giorgio. A 1943 report stated that at Mericcia and San Giorgio there were coal reserves of the Italian Navy, which could be handled by lighter; and that coal supplies for (other?) ships were taken from the coal depot at Gonia, near the naval base (?), and at Mericcia, between the pier and the town. All points mentioned except possibly Koulouki are on Portolago Bay at the southeast end of the island. A coal depot is also reported in Parteni Bay, at the northwest end of the island.

Evidence on the quantity of coal received during wartime on the island of Leros is lacking, except for a report that 18,000 tons of coal were imported as part cargo of 19 supply ships which arrived at the island early in 1942.

V. Information on the ports of Leros, Rhodes and Crete as follows: (a) average daily discharging capacity in tons; (b) discharging equipment available; capacity, make, condition and location of.

A. Rhodes

1. Rhodes Town -- Commercial Harbor

a. Discharging capacity.

It is estimated that daily capacity of the commercial harbor is at least 900 deadweight long tons per day. This is based on the belief that there are more or less adequate alongside berths for two ships of 4500-5000 tons, and two ships of 1000-1500 tons. A more recent report of unchecked reliability indicates that there may be two additional berths for ships of 4500-5000 tons. In that case, there would be another 500-700 tons that could be unloaded. The first estimate, however, is more likely to be correct.

The above figures refer only to cargo discharged from ship to quay. By the use of landing boats or lighters considerable additional cargo could be landed and there appears to be ample quayage for this sort of craft.

Clearance inland would be difficult due to the narrow exit from the principal quay.

b. Discharging equipment.

There is a hand crane of 1.5-ton capacity (some sources say 2-ton) on S. Angelo Quay. It is mounted on a track 15 yards long and consequently although this quay provides the principal berthage, it is used only for unloading caiques. Steamers discharge with their own gear. At the seaplane station is a hand-operated winch

to haul craft up the ramp and a hoist which can lift planes off the ground. A steel barge fitted up as a workshop is equipped with a derrick having a reach of 19.6 to 22.9 feet. It is operated by a small I.C. engine and capable of lifting a German fighter plane.

2. Rhodes Town -- Mandraki

a. Discharging capacity.

It is estimated that 100-200 deadweight long tons a day could be discharged by ordinary methods, but there is considerable quayage with depths of at least three feet at which cargo could be unloaded from shoal-draft craft. Road clearance is somewhat better than at the Commercial Harbor.

b. Discharging equipment.

The only crane reported is a one-ton hand crane. Its location and capacity is not known.

3. Other Ports

There are no other ports of any importance on the island.

B. Leros

1. Port Laki

a. Discharging capacity.

It is estimated that 500 deadweight long tons of cargo could be unloaded daily at Port Laki but this is

based on normal commercial conditions. There are numerous piers with depths of at least 10 feet alongside and by the use of lighters and landing craft this figure could be at least doubled.

b. Discharging equipment.

The following lifting appliances are available: a 25 to 35 ton crane at Pier 10 near Malissa Point just east of Lepida Seaplane Station; a 50 to 70 ton crane on the end of Pier 1 on the north side of the harbor; 2 floating cranes, one of 10 ton capacity; 1 sheerlegs of 10 to 15 ton capacity and two of 2 to 3 ton capacity, all three mounted on lighters. There are also a 3 ton hand crane and a 15 ton electric crane belonging to the Italian Air Force.

2. Other Ports

No other ports on Leros are of any importance.

C. Crete

1. Suda Bay

a. Discharging capacity.

During 1941 operations, 700 deadweight long tons were unloaded at Suda Bay but this does not appear to be the maximum. With ample supplies of lighters or landing craft it seems likely that at least 1,000 tons a day

could be unloaded and possibly considerably more.

b. Discharging equipment.

One small floating crane and one fixed crane of unknown capacity are reported. The latter is on the east quay.

2. Erakleion (Candia)

a. Discharging capacity.

It is estimated that 1,000 deadweight long tons of cargo could be unloaded at Erakleion and this capacity could be further increased if wrecks could be cleared away from the southwest and south quays.

b. Discharging equipment.

A report dated April 1943 states that no cranes are noticeable anywhere but its reliability has not been checked. Another report dated 26 July 1943 states that there were a few 5 ton electric cranes. The latter report is more likely to be true as fairly recent air-coverage showed a traveling crane in the southwest quay and a gantry crane at the foot of the eastern breakwater and there are tracks which could be used by a crane on the southwest mole.

3. Khania (Canea)

a. Discharging capacity.

The estimated capacity is 300 deadweight

long tons a day in good weather only but this might be somewhat increased by the use of landing boats and lighters.

b. Discharging equipment.

Before the German invasion there was a fixed crane of 3 ton capacity on the south quay in the Venetian Harbor and 3 floating cranes of 4, 6, and 8 ton capacity. There was also a small hand operated winch 200 yards east of Customs House. No information whether they are still there.

4. Rethymnon (Retimo)

a. Discharging capacity.

It is estimated that the port could unload 500 deadweight long tons a day but this would involve the use of lighters.

b. Discharging equipment.

Not believed to be any cranes.

5. Agios Nikolaos

a. Discharging capacity.

It is estimated that up to 200 deadweight long tons of cargo a day could be landed and this might be somewhat increased by the use of lighters.

b. Discharging equipment.

It is reported that there is a hand operated crane capable of lifting 1½ tons in the extreme south corner of the outer harbor.

6. Other Ports

No other Cretan ports have any importance.

VI. What new road construction has been begun or completed by the Germans on the Aegean and Dodecanese Islands? What is the present condition of the roads?

Sources of Information: Reports from Military Intelligence (Topographical), GHQ, Middle East Forces (British) -- abbreviated MI(T) -- dating from late 1942 to late 1943, constitute the most complete and latest information available on roads in the Aegean Islands. These reports are supplemented by air photographs supplied by AAPIU, MEIU, RAF (MEPI series) and fragmentary reports from SI and similar intelligence sources.

MI(T) reports are available on the following islands: Khios (22/7/43); Crete (15/11/42); amendment (21/8/43); Samos (?; amendment 16/9/43); Dodecanese Islands (25/12/42-28/4/43; amendment 16/9/43); Amorgos, Anafi, Sifros (20/9/43); Yiaros (24/9/43); Sikinos (22/9/43); Kimolos (25/9/43); Siros (28/9/43); Ios (29/9/43); Polinos (25/9/43); Folekandros (26/9/43); Paros (9/11/43); Keos (24/11/43; Rhodes (29/4/43).

These reports are of superior quality and supersede previous reports, insofar as it has been possible to check in the time allowed. The amendment (21/8/43) of the Crete report, for example, includes all reliable information disseminated before August 1943, including the data in SI material.

Since the publications of the latest MI(T) reports, little information has appeared on the subject. Recent air photos probably exist, however, which contain up-to-date information on roads. Presumably MI(T) will issue further amendments to their published reports based on such photos.

Recent Road Construction: Few of the recent reports on construction activity in the Aegean refer to roads, which suggests that the Germans have given road work a low priority. According to a recent report (September 1943) road maintenance on most of the minor islands had ceased entirely by December 1942.

Crete. There is relatively good information on road construction in Crete; and probably more road work has been carried on there than in any of the other islands, largely owing to the poor state of the roads at the time of the German invasion.

Before the Axis occupation no road on the island could

take two lines of traffic. Bridges were limited in capacity with the result that no road could support more than 7-ton vehicles throughout its length. Soon after the invasion, however, the Germans began road work on a large scale. Observers believed at the time that few new roads were to be built and that the Germans intended to concentrate on improving existing roads.

Nevertheless, in addition to improving existing roads the Germans devoted themselves to constructing alternative routes, particularly along the north coast in areas where the main road was vulnerable. The greatest amount of work appears to have been done in the Khania area. There is no evidence to show that the Germans have carried on road construction along the southern coast, although communications between Ierapetra and the north coast have been improved.

Since August 1943 (when an amendment to the MI(T) report was issued) two new roads are reported to have been constructed: one parallel to the northern coastal route from Episkopi to Dramia; another from Mt. Marni to Sitia. Neither is of great importance, but on the basis of this information it cannot be assumed that road construction in Crete has declined.

At present most of the main roads of Crete are probably capable of two-way traffic and have good surfaces; some have

been given a superficial treatment of tar.

Rhodes. No recent data are available on the road system of Rhodes island. In view of the fact that air coverage of the island is adequate and yet no new road construction has been reported, it is quite possible that little or no road construction has taken place recently. According to a study dated April 1943, but probably based on much earlier information, the road system was made adequate for military defense under Italian control.

> "Recent road construction has revolutionized the strategic problems of an attack on Rhodes Island. The Italians now have three two-way roads running the whole length of the Island, and five lateral roads, also two-way, across the Island connecting these three longitudinal roads. The consequence is that troops can be switched with the greatest rapidity."

At that time Rhodes had about 65 kilometers of tar macadam and 130 kilometers of asphalt road; the rest was metalled or unsurfaced.

Leros. Recent information on Leros is wholly lacking. Since Leros is the chief naval base of the Dodecanese, it has long possessed a more developed road system than most of the islands. Roads there would require much less improvement by the Germans than those of Crete.

According to the MI(T) report of 25 December 1942, the roads serve needs of the military rather than the civil popu-

lation, who use mules on unpaved tracks. These tracks are usually narrow and bounded by stone walls.

Important roads are reported asphalted, while minor roads are metalled. All roads and bridges are strongly built and in good condition. The system includes numerous mountain roads leading to defense positions on summits. These roads end in loops to obviate the need for backing to turn.

Other Aegean Islands. Most of the Dodecanese islands (apart from Rhodes and Leros) have small stretches of roads which generally connect the main port with the chief inland village and branch to important defense points.

Numerous other islands in the Aegean, such as Khios, Samos, Melos, Siros, Keos, and Paros, have a few roads passable by motor traffic. Of this list, Siros and Khios have the densest road systems. Naxos has one motorable road running from Hora to Apeiranthos. Many of the Aegean islands have only tracks, as for example, Folegandros and Kimolos.

Several reports of road construction have come out of these islands during 1943. While the construction in every case has military significance, it has been on a small scale. A new road on Kasos, running from Arvanito to Mt. Profeta Elia, was reported in June. On Kos, a new road serving gun position west of Cardamenax and another from Antimakia to Masticari (about 4.5 km.) were reported in September to have been recently

constructed; on the same island the Kos -- Cape Foca road was extended.

On Kalymnos a road reported under construction in February was finished by September.

Considerable road work has been reported on Melos. In September it was estimated that about 1,000 workers were employed there in the construction and repair of roads. New roads were built between Agios Joannis on the west coast and the monastery of Agios Joannis, and from Plakas to Triovasalo. An extension of the Adamas -- salt marsh road to Probata Bay was projected in late June and may have been completed in August 1943.

VII. Health conditions on Crete and Rhodes, including:
a. Prevalence of yellow fever, yellow jaundice, dysentery or other diseases.

Prevalence of Disease in Crete

A. Introduction. Since the population of Crete is suffering from extreme malnutrition, its resistance to disease must be low and an increased disease incidence and mortality is to be expected. Infant diarrhea, tuberculosis, and malaria are the most important medical and public health problems in Crete.

B. Insect-borne Diseases.

1. Malaria. As malaria is not a notifiable disease in Crete, morbidity rates are not available. Mortality

figures indicate that malaria is more common in the prefecture of Erakleion (Candia) than in other areas of the island. The principal malaria vectors are Anopheles superpictus and A. maculipennis (including A. sacharovi (elutus); of the two A. superpictus is the most common and the more important. Anopheles superpictus breeds most often in mountain streams with rough, rocky beds. Larvae are found in sheltered spots along the banks of the streams and occasionally in streams which are nearly dry. Breeding takes place among boulders or in films of water so shallow that the larvae can not dive.

Anopheles maculipennis breeds in large marches or ponds, but it can adapt itself to smaller more stagnant bodies of water.

Although the breeding places of Anopheles superpictus and A. maculipennis overlap to some extent, malaria in the central, mountainous part of the island is almost always transmitted by A. superpictus, while along the coast and in marshy areas, A. maculipennis (including A. sacharovi (elutus)) is the predominating vector.

Malaria control work was not well-organized in Crete until 1939, when a program which included Crete was inaugurated by the Malaria Division of the Athens School of Hygiene. Anti-malarial work was undertaken with the

collaboration of the local authorities. Emphasis was placed on antilarval measures including the application of Paris green and large scale stocking of impounded waters with Gambusia. Draining and clearing was carried out only near the large towns. At the time of the occupation of the island by the Axis in June 1941, Gambusia were bred in a large pool outside the Health Center in Khania (Canea). They were then transported to other areas as necessary. It is reported that, in 1942, the Germans were carrying out drainage operations on large construction projects where malaria was a problem.

2. Yellow Fever. Yellow fever has not been reported in Crete, although the Aedes aegypti mosquito, a vector of this disease, is common on the island.

3. Dengue Fever. Dengue fever has occurred in epidemic form in Crete, usually in the months of June, July, August, and September. Since, however, there has been no epidemic since 1928, it is probable that only a small proportion of the population is now immune to this disease. One of the vectors of dengue fever, the Aedes aegypti mosquito, is widespread on the island.

4. Sandfly Fever. Epidemics of sandfly fever or three-day fever have occurred in Crete for many years.

This disease is most common during the summer months. Sandflies of the genus Phlebotomus breed in great numbers in cracks of walls or rocks. The only method used locally for the control of sandflies was the burning of coils of punk (Japanese "Katol").

5. Typhus Fever. Typhus fever has not been reported from Crete but may have been introduced, since the vectors are present.

6. Relapsing Fever. It is not known whether there have been any cases of relapsing fever in Crete.

7. Plague. Plague has not been reported from this part of the Mediterranean during the last few years.

C. Intestinal Diseases.

1. Typhoid and Paratyphoid Fever. The death rate from typhoid and paratyphoid fever in Crete is as high as 45 per 100,000 people, compared with a rate of less than 1 per 100,000 people in British and North American cities. Typhoid is particularly prevalent in the dry season when water becomes scarce and individuals resort to the use of shallow, inadequately protected wells.

2. Dysentery. Dysentery is common in Crete. It is believed that most cases are bacillary in nature.

3. Infant Diarrhea. Infant diarrhea is the most common cause of death among infants and children in Crete.

D. Respiratory Group of Diseases.

1. Tuberculosis. Tuberculosis is one of the most important causes of death in Crete. Pulmonary tuberculosis is the most common form.

2. Meningitis. Meninigitis cases in Crete are said to have increased in number.

E. Other Communicable Diseases.

1. Smallpox. Smallpox is rarely seen in Crete since vaccination is compulsory.

2. Leprosy. Leprosy is probably widespread in Crete. The only figures available are for the years at the beginning of the century. At that time there were thought to be about 1000 cases of leprosy on the island.

3. Trachoma. Trachoma is undoubtedly a problem in Crete, although no figures on incidence are available.

4. Kala-azar. Kala-azar is extremely prevalent.

F. Diseases of the skin. Scabies, impetigo, ringworm, and farus are common.

G. Other Diseases.

1. Undulant Fever. It has been stated that boiling milk is an almost universal practice in Crete and, if

this is true, undulant fever is not a problem.

2. Jaundice. Jaundice, as a symptom, not a disease, is undoubtedly prevalent in Crete. It is not known whether or not infectious jaundice, or Weil's disease, is found on this island.

Prevalence of Disease in Rhodes

A. Introduction. No morbidity or mortality reports are available on disease conditions in Rhodes. The Italians, since their occupation of the Dodecanese Islands, have published little in regard to the medical and public health aspects of these islands. The most important disease problems are probably tuberculosis and malaria.

B. Insect-borne Diseases

1. Malaria. Malaria is prevalent in the Dodecanese Islands. There is a well-defined malaria season from May to October with the maximum incidence in July and August. The following malaria vectors occur in Rhodes: Anopheles maculipennis typicus, A. sacharovi (elutus) and A. superpictus. The government of Rhodes inaugurated an anti-malaria campaign in 1926. Control measures consisted of filling and draining where necessary, applying Paris green, and stocking reservoirs with Gambusia.

2. Yellow Fever. There are no reports of yellow fever in Rhodes but this disease could be introduced from

other areas, since one of the principal vectors of this disease, the Aedes aegypti mosquito is prevalent on the island.

3. Dengue Fever. Dengue fever has been known to occur in Rhodes. The Aedes aegypti mosquito, one of the principal vectors of this disease, is found in large numbers on the island.

4. Sandfly Fever. The vector of sandfly fever, flies of the genus Phlebotomus, are found on Rhodes, but it is not known whether or not the disease is present.

5. Typhus Fevers. Louse-borne typhus fever, enteric or flea-borne typhus fever and boutonneuse fever have all occurred from time to time in this part of the world. It is probable that these diseases are endemic throughout the Dodecanese Islands.

6. Relapsing Fever. No reports on relapsing fever in Rhodes are available.

7. Plague. Plague has not been reported from this part of the Mediterranean during the last few years, and it is unlikely that it is to be found at the present time in the Dodecanese Islands.

C. Intestinal Diseases

1. Typhoid Fever, Paratyphoid Fever, and Bacillary Dysentery. Typhoid fever, paratyphoid fever and bacillary

dysentery are endemic in this part of the Mediterranean.

D. Respiratory Group of Diseases. Respiratory infections are common and severe in the Dodecanese Islands.

1. Tuberculosis. Tuberculosis is known to be prevalent among the native peoples in this part of the Mediterranean, and undoubtedly constitutes a major health problem in Rhodes.

2. Meningitis. Epidemics of acute meningococcic meningitis have occurred recently in Greece, Bulgaria, and Turkey and may have reached the Dodecanese Islands.

E. Other Communicable Diseases

1. Small pox. Epidemics of small pox occasionally occur in Rhodes -- the disease being most often introduced by infected individuals from Turkey.

2. Leprosy. Leprosy is endemic in the Dodecanese Islands.

3. Trachoma. Trachoma is known to be prevalent in Rhodes.

4. Kala-azar. Kala-azar probably exists in Rhodes.

F. Diseases of the Skin. Scabies, impetigo, ringworm and farus are widespread among the native peoples of the Dodecanese Islands.

G. Other Diseases

1. Undulant Fever. Undulant fever is endemic in Rhodes. The veterinary and animal quarantine service on the island may have effected some degree of control over this disease.

2. Jaundice. Jaundice, as a symptom, not a disease, is undoubtedly prevalent in Rhodes. It is not known whether infectious jaundice, or Weil's disease, is to be found on the island.

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3. OSS Report (Dissemination Number A-7156)

4. Strategic Study of Crete, Office of Chief of Naval Operations, Division of Naval Intelligence. 15 April 1943.